

CLAIMS

- 1 1. In a data processing system having a user terminal coupled to a data base management system
2 via a publically accessible digital data communication network, the improvement comprising:
 - 3 a. a document containing a plurality of elements formatted in XML (extended markup
4 language) transferred via said publically accessible digital data communication network to
5 said data base management system;
 - 6 b. a document type definition (DTD) which defines the format of said document; and
 - 7 c. an XML mapping tree defined by said DTD into which each of said plurality of
8 elements is mapped for use by said data base management system.
- 9 2. The improvement according to claim 1 wherein at least one of said plurality of elements
10 further comprises an attribute which is recorded within said XML mapping tree.
- 11 3. The improvement according to claim 2 wherein said DTD is transferred to said data base
12 management system via said digital data communication network.
- 13 4. The improvement according to claim 3 further comprising a storage space in which said DTD
14 is stored for future use.

1 5. The improvement according to claim 4 wherein said DTD location path is displayed on said
2 user terminal as a window.

1 6. An apparatus comprising:

2 a. an XML document;

3 b. a Document Type Definition (DTD) which defines the format of said XML document;

4 c. a publically accessible digital data communication network;

5 d. a data base management system having an input format different from XML
6 responsively coupled to said publically accessible digital data communication network
7 which receives said XML document via said publically accessible digital data
8 communication network; and

9 e. an XML mapping tree responsively coupled to said data base management system

10 which parses said XML document in accordance with said DTD into said input format of

11 said data base management system.

1 7. The apparatus of claim 6 wherein an internal representation of the XML element tree

2 corresponding to said DTD is stored for future use.

1 8. The apparatus of claim 7 wherein said XML document further comprises a plurality of

2 elements and at least one of said plurality of elements has an attribute.

1 9. The apparatus of claim 8 wherein an internal representation of the XML element tree
2 corresponding to said DTD is received by said data base management system via said publically
3 accessible digital data network.

1 10. The apparatus of claim 9 wherein said publically accessible digital data communication
2 system further comprises the Internet.

1 11. A method of interfacing an XML document to a data base management system having an
2 incompatible input protocol comprising:

- 3 a. transferring said XML document to said data base management system via a
4 publically accessible digital data communication network;
5 b. parsing said XML document into an XML mapping tree in accordance with a
6 Document Type Definition (DTD) corresponding to said XML document; and
7 c. presenting said parsed XML document to said data base management system for
8 processing.

1 12. A method according to claim 11 further comprising the step of saving the internal
2 representation of the XML\element tree corresponding to said DTD for future use.

1 13. A method according to claim 12 wherein the internal representation of the XML element
2 tree corresponding to said DTD is retrieved from storage.

1 14. A method according to claim 13 wherein said XML document further comprises a plurality
2 of elements and at least one element has an attribute.

1 15. A method according to claim 14 wherein said publically accessible digital data
2 communication network further comprises the Internet.

1 16. An apparatus comprising:
2 a. means for transmitting an XML document;
3 b. means for stating a DTD associated with said document;
4 c. means responsively coupled to said transmitting means for providing data base
5 management functions; and
6 d. means responsively coupled to said providing means for composing said XML document
7 from an XML mapping tree and data in said data base management system based upon said
8 DTD.

17. An apparatus according to claim 16 wherein said composing means further comprises means
for storing said parsed DTD for future use.

1 18. An apparatus according to claim 17 wherein said XML document further comprises a
2 plurality of elements and at least one of said plurality of elements has an attribute.

1 19. An apparatus according to claim 18 wherein said transmitting means further comprises the
2 Internet.

1 20. An apparatus according to claim 19 further comprising means for displaying a pathway for
2 said DTD storage location.

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